

AMENDMENTS TO THE CLAIMS:

Please cancel claims 7, 18 and 20 without prejudice or disclaimer of the subject matter therein.

Please amend claims 1, 8, 9, 19, 21 and 22 as follows:

1. (currently amended) An information recording system, comprising:

a storage medium having a plurality of adjacent tracks, each of the adjacent tracks including include a plurality of storage elements that are arranged substantially along each respective track in substantially a regular manner, each track having an associated along-track direction, the storage elements being arranged substantially along first and second axes, the first axis being substantially perpendicular to the second axis, the first and second axes being each locally substantially 45° from the respective along-track directions of the tracks; and

a head disposed in proximity to the storage medium and having a width that substantially spans at least two adjacent tracks.

2. (original) The information recording system according to claim 1, wherein the storage medium is a magnetic storage medium, and the head is a magnetic head.

3. (original) The information recording system according to claim 2, wherein each track is located substantially in a plane within the storage medium, and

wherein at least one storage element is a magnetic domain storage element that is substantially perpendicular to the plane in which the track in which the storage element is

arranged is substantially located.

4. (original) The information recording system according to claim 2, wherein each track is located substantially in a plane within the storage medium, and

wherein at least one storage element is a magnetic domain storage element that is substantially parallel to the plane in which the track in which the storage element is substantially located.

5. (original) The information recording system according to claim 2, wherein at least a portion of the magnetic storage medium is patterned.

6. (original) The information recording system according to claim 2, wherein the magnetic storage medium is a perpendicular magnetic storage medium.

7. (cancelled)

8. (currently amended) The information recording system according to claim 72, wherein the along-track direction of the tracks is a circle.

9. (currently amended) The information recording system according to claim 72, wherein the along-track direction of the tracks is a spiral.

10. (original) The information recording system according to claim 2, wherein each adjacent track spanned by the head has a different phase.

11. (original) The information recording system according to claim 2, wherein the magnetic storage medium has an areal density of at least about 64 Gbit/in²

12. (original) The information recording system according to claim 2, wherein the magnetic storage medium has an areal density of at least about 128 Gbit/in².

13. (original) The information recording system according to claim 2, wherein the magnetic storage medium has an areal density of at least about 256 Gbit/in².

14. (original) The information recording system according to claim 2, wherein the magnetic storage medium is a magnetic disk.

15. (original) The information recording system according to claim 2, wherein the magnetic storage medium is a magnetic tape.

16. (original) The information recording system according to claim 2, wherein the magnetic storage medium is a magnetic strip.

17. (original) The information recording system according to claim 2, wherein the information recording system is part of a magnetic medium disk drive.

18. (cancelled)

19. (currently amended) The information recording system according to claim 1827, wherein at least a portion of the optical storage medium is patterned.

20. (cancelled)

21. (currently amended) The information recording system according to claim 2027, wherein the along-track direction of the tracks is a circle.

22. (currently amended) The information recording system according to claim 2027, wherein the along-track direction of the tracks is a spiral.

23. (original) The information recording system according to claim 1, wherein the head reads information from at least two adjacent tracks spanned by the head.

24. (original) The information recording system according to claim 1, wherein the

head writes information to at least two adjacent tracks spanned by the head.

25. (original) The information recording system according to claim 1, wherein the plurality of adjacent tracks is formed by at least one spiral-shaped track.

26. (original) The information recording system according to claim 1, wherein the plurality of adjacent tracks is formed by a plurality of concentric tracks.

Applicants respectfully request the Examiner to enter the following claim:

27. (new) An information recording system, comprising:
an optical storage medium having a plurality of adjacent tracks, each of the adjacent tracks including a plurality of storage elements that are arranged substantially along each respective track in substantially a regular manner, each track having an associated along-track direction, the storage elements being arranged substantially along first and second axes, the first axis being substantially perpendicular to the second axis, the first and second axes being each locally substantially 45° from the respective along-track directions of the tracks; and
an optical head disposed in proximity to the storage medium and having a width that substantially spans at least two adjacent tracks.